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## Claims

1. A light phase modulator comprising a conducting part characterized by the fact that it is based on a multi-gate transistor, which if scaled in the submicron dimension is a gated-nanowire modulator.  
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2. Light phase modulator according to claim 1 characterized by the fact that is obtained from a SOI or a Si bulk.
- 15 3. Light phase modulator according to claim 1 or 2 forming a gate-all-around architecture.
4. Light phase modulator according to anyone of the previous claims characterized by the fact that it has a triangular, a rectangular, a polygonal, or an ovoid shape.
- 20 5. Light phase modulator according to anyone of the previous claims 1 to 3 characterized by the fact that it has a triangular, a rectangular or a polygonal form with rounded corners.
- 25 6. Light phase modulator according to anyone of the previous claims in which the conductor part is doped polycrystalline Silicon.
7. Light phase modulator according to claim 3 or 4 or 5 forming a capacitive configuration.
- 30 8. Optical resonant cavity comprising a light phase modulator according to anyone of the previous claims.

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